

## WHAT IS CLAIMED IS:

1. A method of processing digital information comprising the steps of:
  - (a) receiving digital information at an input connected to a recording buffer;
  - (b) filling the recording buffer with information; and
  - 5 (c) simultaneously with steps (a) through (b),
    - (i) monitoring the recording buffer to determine whether it is filled;
    - (ii) transferring the contents of the filled recording buffer to a processing buffer;
    - (iii) monitoring the processing buffer to determine whether a  
10 predetermined amount of the processing buffer is filled; and
    - (iv) writing the contents of the processing buffer to a storage  
medium when a predetermined amount of the processing buffer  
has been filled.
2. The method of claim 1, and further comprising the step of displaying status  
15 information pertaining to the digital information on a display.
3. The method of claim 2, and further comprising the step of displaying a real time  
waveform of the digital information.
4. The method of claim 3, and further comprising the step of marking selected  
portions of the waveform.

5. The method of claim 4, and further comprising the step of displaying the markers concurrently with the waveform.
6. The method of claim 5, and further comprising the step of color-coding the waveforms.
- 5 7. The method of claim 1, and further comprising the step of reallocating each recording buffer as available for receipt of digital information after its contents have been written to the processing buffer.
8. A method of processing digital information comprising the steps of:
  - (a) receiving digital information at an input connected to a recording buffer  
10 segment;
  - (b) filling the recording buffer segment with information; and
  - (c) simultaneously with steps a through b,
    - (i) monitoring the recording buffer segment to determine whether  
it is filled;
    - 15 (ii) transferring the contents of the filled recording buffer segment to a processing buffer;
    - (iii) monitoring the processing buffer to determine whether a predetermined amount of the processing buffer is filled; and

- (iv) writing the contents of the processing buffer to a storage medium when a predetermined amount of the processing buffer has been filled.

- 9. The method of claim 8, and further comprising the step of displaying status  
5 information pertaining to the digital information on a display.
- 10. The method of claim 9, and further comprising the step of displaying a real time waveform of the digital information.
- 11. The method of claim 10, and further comprising the step of marking selected portions of the waveform.
- 10 12. The method of claim 11, and further comprising the step of displaying the markers concurrently with the waveform.
- 13. The method of claim 12, and further comprising the step of color-coding the waveforms.
- 14. The method of claim 8, and further comprising the step of reallocating each  
15 recording buffer segment as available for receipt of digital information after its contents have been written to the processing buffer.

15. A method of processing digital information comprising the steps of:
- (a) receiving digital information at an input switchably connected to a plurality of recording buffers;
  - (b) sequentially filling the recording buffers with information; and
  - 5 (c) simultaneously with steps (a) through (b),
    - (i) monitoring the recording buffers to determine whether any recording buffer is filled;
    - (ii) sequentially transferring the contents of each filled recording buffer to a processing buffer;
    - 10 (iii) monitoring the processing buffer to determine whether a predetermined amount of the processing buffer is filled; and
    - (iv) writing the contents of the processing buffer to a storage medium when a predetermined amount of the processing buffer has been filled.
- 15 16. The method of claim 15, and further comprising the step of displaying status information pertaining to the digital information on a display.
17. The method of claim 16, and further comprising the step of displaying a real time waveform of the digital information.
18. The method of claim 17, and further comprising the step of marking selected
- 20 portions of the waveform.

19. The method of claim 18, and further comprising the step of displaying the markers concurrently with the waveform.
20. The method of claim 19, and further comprising the step of color-coding the waveforms.
- 5 21. The method of claim 15, and further comprising the step of reallocating each recording buffer as available for receipt of digital information after its contents have been written to the processing buffer.
22. A method of processing digital information comprising the steps of:
- 10 (a) receiving digital information at an input switchably connected to a plurality of recording buffers;
- (b) sequentially filling the recording buffers with information; and
- (c) simultaneously with steps (a) through (b),
- (i) monitoring the recording buffers to determine whether any recording buffer is filled;
- 15 (ii) sequentially transferring the contents of each filled recording buffer to a processing buffer;
- (iii) monitoring the processing buffer to determine whether a predetermined amount of the processing buffer is filled;

- (iv) writing the contents of the processing buffer to a storage medium when a predetermined amount of the processing buffer has been filled; and
  - (d) simultaneously with steps (a) through (c), monitoring the receipt of digital information to determine when receipt of digital information is completed and, upon such determination:
    - (i) sequentially transferring the contents of each filled and unfilled recording buffer to the processing buffer; and
    - (ii) writing the contents of the processing buffer to a storage medium.
- 23. The method of claim 22, and further comprising the step of displaying status information pertaining to the digital information on a display.
- 24. The method of claim 23, and further comprising the step of displaying a real time waveform of the digital information.
- 25. The method of claim 24, and further comprising the step of marking selected portions of the waveform.
- 26. The method of claim 25, and further comprising the step of displaying the markers concurrently with the waveform.

27. The method of claim 26, and further comprising the step of color-coding the waveforms.
28. The method of claim 22, and further comprising the step of reallocating each recording buffer as available for receipt of digital information after its contents  
5 have been written to the processing buffer.
29. A method of processing digital information comprising the steps of:
- (a) receiving digital information at an input switchably connected to a plurality of recording buffers;
  - (b) sequentially filling the recording buffers with information; and
  - 10 (c) simultaneously with steps (a) through (b),
    - (i) monitoring the recording buffers to determine whether a predetermined number of recording buffers are filled;
    - (ii) sequentially transferring the contents of each filled recording buffer to a processing buffer; and
  - 15 (d) simultaneously with steps (a) through (c),
    - (i) monitoring the processing buffer to determine whether a predetermined amount of the processing buffer is filled; and
    - (ii) writing the contents of the processing buffer to a storage medium when a predetermined amount of the processing buffer  
20 has been filled.

30. The method of claim 29, and further comprising the step of displaying status information pertaining to the digital information on a display.
31. The method of claim 30, and further comprising the step of displaying a real time waveform of the digital information.
- 5 32. The method of claim 31, and further comprising the step of marking selected portions of the waveform.
33. The method of claim 32, and further comprising the step of displaying the markers concurrently with the waveform.
34. The method of claim 33, and further comprising the step of color-coding the waveforms.
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35. The method of claim 29, and further comprising the step of reallocating each recording buffer as available for receipt of digital information after its contents have been written to the processing buffer.
36. A method of processing digital information comprising the steps of:
- 15 (a) receiving digital information at an input switchably connected to a plurality of recording buffers;
- (b) sequentially filling the recording buffers with information;



- (c) sequentially transferring the contents of each filled recording buffer to a processing buffer; and
  - (d) simultaneously with steps (a) through (c),
    - (i) monitoring the processing buffer to determine whether a  
5 predetermined amount of the processing buffer is filled; and
    - (ii) writing the contents of the processing buffer to a storage  
medium when a predetermined amount of the processing buffer  
has been filled.
37. The method of claim 36, and further comprising the step of displaying status  
10 information pertaining to the digital information on a display.
38. The method of claim 37, and further comprising the step of displaying a real  
time waveform of the digital information.
39. The method of claim 38, and further comprising the step of marking selected  
portions of the waveform.
- 15 40. The method of claim 39, and further comprising the step of displaying the  
markers concurrently with the waveform.
41. The method of claim 40, and further comprising the step of color-coding the  
waveforms.

42. The method of claim 36, and further comprising the step of reallocating each recording buffer as available for receipt of digital information after its contents have been written to the processing buffer.
43. A method of processing digital information comprising the steps of:
- 5 (a) receiving digital information at an input switchably connected to a plurality of recording buffers;
- (b) filling a recording buffer with information;
- (c) monitoring the recording buffers to determine whether a recording buffer is filled;
- 10 (d) transferring the contents of a filled recording buffer to a processing buffer;
- (e) monitoring the processing buffer to determine whether a predetermined amount of the processing buffer is filled;
- (f) writing the contents of the processing buffer to a storage medium; and
- 15 (g) switching to a next recording buffer for filling.
44. The method of claim 43, and further comprising the step of displaying status information pertaining to the digital information on a display.
45. The method of claim 44, and further comprising the step of displaying a real time waveform of the digital information.

46. The method of claim 45, and further comprising the step of marking selected portions of the waveform.
47. The method of claim 46, and further comprising the step of displaying the markers concurrently with the waveform.
- 5 48. The method of claim 47, and further comprising the step of color-coding the waveforms.
49. The method of claim 43, and further comprising the step of reallocating each recording buffer as available for receipt of digital information after its contents have been written to the processing buffer.
- 10 50. A PDA program product comprising a PDA usable medium having control logic stored therein for causing a PDA to record digital multimedia information, said control logic comprising:
- (a) PDA readable program code means for causing the PDA to receive digital information at an input connected to a recording buffer;
  - 15 (b) PDA readable program code means for causing the PDA to fill the recording buffer with information;
  - (c) PDA readable program code means for causing the PDA to monitor the recording buffer to determine whether it is filled;

- (d) PDA readable program code means for causing the PDA to transfer the contents of the filled recording buffer to a processing buffer;
  - (e) PDA readable program code means for causing the PDA to monitor the processing buffer to determine whether a predetermined amount of the processing buffer is filled; and
  - (f) PDA readable program code means for causing the PDA to write the contents of the processing buffer to a storage medium when a predetermined amount of the processing buffer has been filled.
51. A PDA program product comprising a PDA usable medium having control logic stored therein for causing a PDA to record digital multimedia information, said control logic comprising:
- (a) PDA readable program code means for causing the PDA to receive digital information at an input connected to a recording buffer segment;
  - (b) PDA readable program code means for causing the PDA to fill the recording buffer segment with information;
  - (c) PDA readable program code means for causing the PDA to monitor the recording buffer segment to determine whether it is filled;
  - (d) PDA readable program code means for causing the PDA to transfer the contents of the filled recording buffer segment to a processing buffer;
  - (e) PDA readable program code means for causing the PDA to monitor the processing buffer to determine whether a predetermined amount of the processing buffer is filled; and

- (f) PDA readable program code means for causing the PDA to write the contents of the processing buffer to a storage medium when a predetermined amount of the processing buffer has been filled.

52. A PDA program product comprising a PDA usable medium having control logic  
5 stored therein for causing a PDA to record digital multimedia information, said control logic comprising:

- (a) PDA readable program code means for causing the PDA to receive digital information at an input switchably connected to a plurality of recording buffers;
- 10 (b) PDA readable program code means for causing the PDA to sequentially fill the recording buffers with information;
- (c) PDA readable program code means for causing the PDA to monitor the recording buffers to determine whether any recording buffer is filled;
- 15 (d) PDA readable program code means for causing the PDA to sequentially transfer the contents of each filled recording buffer to a processing buffer;
- (e) monitor the processing buffer to determine whether a predetermined amount of the processing buffer is filled; and
- 20 (f) PDA readable program code means for causing the PDA to write the contents of the processing buffer to a storage medium when a predetermined amount of the processing buffer has been filled.

53. A PDA program product comprising a PDA usable medium having control logic stored therein for causing a PDA to record digital multimedia information, said control logic comprising:

- 5 (a) PDA readable program code means for causing the PDA to receive digital information at an input switchably connected to a plurality of recording buffers;
- (b) PDA readable program code means for causing the PDA to sequentially fill the recording buffers with information;
- (c) PDA readable program code means for causing the PDA to  
10 monitor the recording buffers to determine whether any recording buffer is filled;
- (d) PDA readable program code means for causing the PDA to sequentially transfer the contents of each filled recording buffer to a processing buffer;
- 15 (e) PDA readable program code means for causing the PDA to monitor the processing buffer to determine whether a predetermined amount of the processing buffer is filled;
- (f) PDA readable program code means for causing the PDA to write the contents of the processing buffer to a storage medium when a  
20 predetermined amount of the processing buffer has been filled;
- (g) PDA readable program code means for causing the PDA to monitor the receipt of digital information to determine when receipt of digital information is completed,

- (h) PDA readable program code means for causing the PDA to, upon such determination, sequentially transfer the contents of each filled and unfilled recording buffer to the processing buffer; and
  - (i) PDA readable program code means for causing the PDA to write the contents of the processing buffer to a storage medium.
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54. A PDA program product comprising a PDA usable medium having control logic stored therein for causing a PDA to record digital multimedia information, said control logic comprising:
- (a) PDA readable program code means for causing the PDA to receive digital information at an input switchably connected to a plurality of recording buffers;
  - (b) PDA readable program code means for causing the PDA to sequentially fill the recording buffers with information;
  - (c) PDA readable program code means for causing the PDA to monitor the recording buffers to determine whether a predetermined number of recording buffers are filled;
  - (d) PDA readable program code means for causing the PDA to sequentially transfer the contents of each filled recording buffer to a processing buffer;
  - (e) PDA readable program code means for causing the PDA to monitor the processing buffer to determine whether a predetermined amount of the processing buffer is filled; and
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- (f) PDA readable program code means for causing the PDA to write the contents of the processing buffer to a storage medium when a predetermined amount of the processing buffer has been filled.

55. A PDA program product comprising a PDA usable medium having control logic  
5 stored therein for causing a PDA to record digital multimedia information, said control logic comprising:

- (a) PDA readable program code means for causing the PDA to receive digital information at an input switchably connected to a plurality of recording buffers;

10 (b) PDA readable program code means for causing the PDA to sequentially fill the recording buffers with information;

- (c) PDA readable program code means for causing the PDA to sequentially transfer the contents of each filled recording buffer to a processing buffer;

15 (d) PDA readable program code means for causing the PDA to monitor the processing buffer to determine whether a predetermined amount of the processing buffer is filled; and

- (e) PDA readable program code means for causing the PDA to write the contents of the processing buffer to a storage medium when a  
20 predetermined amount of the processing buffer has been filled.



56. A PDA program product comprising a PDA usable medium having control logic stored therein for causing a PDA to record digital multimedia information, said control logic comprising:

- 5 (a) PDA readable program code means for causing the PDA to receive digital information at an input switchably connected to a plurality of recording buffers;
- (b) PDA readable program code means for causing the PDA to fill a recording buffer with information;
- (c) PDA readable program code means for causing the PDA to monitor the  
10 recording buffers to determine whether a recording buffer is filled;
- (d) PDA readable program code means for causing the PDA to transfer the contents of a filled recording buffer to a processing buffer;
- (e) PDA readable program code means for causing the PDA to monitor the  
15 processing buffer to determine whether a predetermined amount of the processing buffer is filled;
- (f) PDA readable program code means for causing the PDA to write the contents of the processing buffer to a storage medium; and
- (g) PDA readable program code means for causing the PDA to switch to a next recording buffer for filling.